

LASCA Leaves



Los Angeles County Department of Arboreta and Botanic Gardens

INSTITUTE OF MUSEUM SERVICES GRANT FOR GARDENER TRAINING PROGRAM

A GRANT OF \$35,000 from the Institute of Museum Services will enable the Department to expand the gardener training program to include all three Department facilities during the coming summer. Although the training program has been operating for several years at the Los Angeles State and County Arboretum, the additional funds from IMS make it possible for the first time to include Descanso Gardens and South Coast Botanic Garden in the program.

A \$10,000 portion of the grant will also be applied to the nearly completed computerized plant inventory system. When the new computer system is in operation, a home gardener or botanist can refer to the computer printout to quickly find the location of any plant on the grounds and at the same time learn up to 31 specific pieces of information on any plant in the Arboretum collection.

The nine-week gardener training program is a combination of lec-



Students in the gardener training program learn procedures for canning nursery-grown plants. Jane Olmstead (left) and Damian Sanchez completed the nine-week course at the Arboretum in 1980.

tures and practical work experience on the facility grounds that benefits both the Department and the students. The high school and college students who take part in the program have already expressed an interest in horticulture and landscaping as a possible career choice. Most of the trainees have also completed basic academic courses related to horticulture. By studying and working under the supervision of professionals already in the field, the students will be able to better assess the strength of their attraction to horticulture.

The Department gains not only the immediate added manpower contributed by the students, but in the future will be able to draw from the increased number of persons trained in the fundamental skills needed at botanical gardens and other private and public landscaped projects.

The Institute of Museum Service is an independent agency within the Department of Education. The Institute, now in its third year of operation, supports a variety of museums including art, history, and natural history museums; general and specialized museums; aquariums; botanical gardens; planetariums; science-technology centers; and zoos.

"General operating support grants are the most valuable type a museum can receive because they are applied towards the basic services that museums provide—education, conservation, security, exhibitions, and outreach program—while allowing local museums to establish their own priorities," said Mrs. Lee Kimche, director of IMS. "The Institute's grants are designed to help developing and established museums meet the financial pressures caused by inflation, energy shortages, and the demands made by the nearly 500 million visitors annually to the nation's 5,500 museums," she added.

FIESTA DE FLORES

CINDY (Mrs. Richard) Peters, chairman for the 1981 Fiesta de Flores said that the mild coastal climate in the South Bay area had a major influence on the choice of plants for the Fiesta this year. During the plant sale on May 16 and 17, shoppers can choose from among thousands of plants, confident that any of them will do well in the local climate.

For instance, more than 100 cultivars of deciduous fruit trees including apples and apricots that need a minimum of winter chilling will be for sale. Shoppers even have a choice of the size they want for the mature tree—both standard and semidwarf are available in most varieties.

A good selection of plants that do

well in other areas as well as thrive along the coast will also be for sale. Several hundred cultivars of both the pink and white varieties of frangipani (*Plumeria rubra*) will be sold in one-gallon cans. Donations from two commercial nurseries added some choice plants to the Fiesta, including hanging baskets of fern asparagus (*Asparagus crispus*) and several hundred especially attractive cane-type begonias.

Foundation members have also been busy propagating unusual plants to tempt dedicated collectors. They have almost 300 blue hibiscus (*Hibiscus huegelii*) and a limited number of South African wild cotton (*Asclepias physocarpa*) seedlings on hand. The wild cotton is probably the most unusual offering at the

Eileen Hume checks the size of the *Cassia leptophylla* trees that are the Arbor Day Tree of the Year for 1981. As chairman of the Las Voluntarias mailings committee, Mrs. Hume coordinates the Arbor Day program each year.



Fiesta this year, Mrs. Peters said. Although avant-garde florists often use the pale green balloon-like seed pods in unconventional floral arrangements, the shrub itself is rarely available to home gardeners. "It's pure luck that we were able to get the seeds," Mrs. Peters said. "Although the shrub is easy and fast to grow, you just never see it in nurseries."

South Coast Botanic Garden Foundation members and their guests will have first choice of the plants at a preview party on the evening of May 15 at the garden.

ARBOR DAY TREES

AS LOS ANGELES celebrates the past and looks toward the future during the city's bicentennial year of 1981, the Department again makes its contribution to the future with Arbor Day trees given to school children. More than 900 schools from 48 districts in Los Angeles County will hold a combined Arbor Day and



Bicentennial Celebration in early March by planting on their campuses *Cassia leptophylla* trees distributed free by the Department. Each school receives a six-foot tall tree to help remind students of how vitally important plants in general and trees in particular are to humans.

Cassia leptophylla is an especially appropriate choice for the Bicentennial because, as an Arboretum introduction, it represents the changes introduced plants have made in the landscape of Southern California. The drab semidesert the Spanish missionaries found here has been transformed during the past 200 years into an oasis of colorful blooming plants imported from around the world. The Arboretum itself has been instrumental in bringing more than 80 of these plants into local gardens through its active plant introduction program.

A packet of educational Arbor Day materials accompanies each tree to give added meaning and background on the celebration to students. Las Voluntarias members assembled a packet this year that contains a dozen different pieces of information ranging from a poster showing how to trace a tree's history and growth to a puzzle page made up of the names of trees. A pamphlet with information about the tree of the year, a history of Arbor Day, and a sample program outlining a suggested school assembly and tree planting ceremony are a few of the other enclosures.

Although the trees and the packets are important in encouraging the observation of Arbor Day in Los Angeles schools, the program would not be possible without the assistance of generous donations from several sources. Special thanks go to the BankAmerica Foundation, Atlantic Richfield Foundation, The Oak Tree Foundation, and the California Arboretum Foundation for their assistance.

BALDWIN BONANZA

THE ANNUAL PLANT SALE at the Los Angeles State and County Arboretum is a bonanza for plant enthusiasts who find it rewarding to search out extraordinary plants with which to accent their homes and gardens. Baldwin Bonanza XI scheduled for May 3 will be the same in that respect but very different regarding the types of plants for sale. Soon after receipts from the last Bonanza were added up, members of Las Voluntarias and the Arboretum staff began scouting the world for unusual plants for the 1981 sale. When Joyce (Mrs. John) Bauer, current Bonanza chairman, took stock recently of the plants they had gathered, she reported some fine acquisitions that should prove irresistible to any collector who enjoys growing plants not offered by local nurseries.

Many of the bromeliads, for example, were shipped from Mexico, and 300 named cultivars of rhipis palms were imported from Japan. Two dwarf rhipis 'Daruma' and 'Kadaruma' are solid green cultivars that make elegant houseplants. A variegated cultivar of *Rhipis excelsa*, 'Zuikon-nishiki,' is so prized by the Japanese that especially fine specimens are purchased as investments during times of economic instability. For this reason, rhipis palms are popularly known in Japan as "Depression grass." Evenness of coloration and refinement of plant form are more important than size when judging the value of show quality palms that range in height from 8 to 20 inches.

The named rhipis cultivars may be the rare stars of the sale, but there will also be a good selection of both indoor and outdoor palms. Besides the more common species and hybrids, a few specimens of *Arthrostylidium longifolium*, the graceful clumping bamboo that the Arbore-

tum introduced, will be on sale for outdoor gardens.

Another Arboretum introduction, *Combretum fruticosum*, will be available in one-gallon cans. This clean, easily controlled vine warrants admiring glances when the shiny foliage and caterpillar-like flowers are displayed on a fence or trellis.

Patio gardeners looking for an eye-catching tub plant may choose from the large selection of *Plumeria rubra*. Among the 300 different sizes of plumerias are cultivars with fragrant flowers in shades of deep red, pink, yellow, and white. Those with a penchant for the bizarre may be more attracted by the *Cissus juttae* whose knobby, swollen stems belie its relationship to the common grape.

Houseplant fanciers will also have a chance to obtain many unusual additions to their collections at the Bonanza. *Spathiphyllum floribundum*, a recently introduced species, has not yet reached retail nurseries. Its dark green, velvety leaves make a bright contrast to the long-lasting white spathes now opening above the foliage. About 250 malabar chestnut trees (*Pachira aquatica*) that John Provine, Arboretum superintendent, describes as a "natural bonsai" will be planted in bonsai pots for buyers who are attracted by houseplants with an Oriental aura.

Last year, Foundation members and their guests who attended the Preview Party bought all the hanging fuchsias before the Bonanza opened to the public. The sellout is likely to be repeated this year because the Foundation was able to obtain only a few of the flower-covered baskets. Besides having the opportunity to buy the specialty plants that are available in such limited quantities, Foundation members can enjoy hors d'oeuvres at the Preview Party Saturday evening while they make their selections and check to see if they have won any of the many door prizes.



Spathiphyllum floribundum makes its debut at Baldwin Bonanza XI. The recently introduced species is not yet available in retail nurseries.

Variegated rhipis such as those for sale at the Baldwin Bonanza are often characterized as "the Rolls Royce of palms." Although these palms are expensive, they make ideal houseplants.



Bamboo

By GARY WALLACE

PERHAPS NO OTHER MEMBERS of the plant kingdom are so intimately linked with human existence as the bamboos. The mysteries of their blooming, persistence, and stately appearance, as well as the antiquity of human relationships with them, all contribute to the legendary nature of bamboo.

Bamboos are members of the grass family (Poaceae) by virtue of the structure of their flowers. The bamboos, which are usually woody, are the largest of the grasses. The smaller members of the grass family include those that provide much of our basic food such as wheat, oats, barley, rice, rye, and corn.

Bamboos are thought to symbolize strength and endurance through flexibility and thus are likened to gentlemanly conduct. Their hollow stems evoke an image of openheartedness. Their unique structure allows them to bend under heavy winter snows yet recover quickly to an erect position in spring. Because the stems often grow close together, bamboo is considered a symbol of family loyalty. These aesthetic attributes are, in part, a result of the long and close relationships humans have had with the several types of bamboos in the tropical regions of the world. The ancient Malays thought the stems were the original womb of man.

Few plants are so universally and effectively utilized as the great variety of bamboos. Alfred Russel Wallace, a contemporary of Charles Darwin, noted in his book *The Malay Archipelago* the various uses of bamboo by the Dyak tribesmen of

Malaya. Huts were built almost entirely of bamboo and furnished with bamboo articles as well. Simple but useful ladders fashioned of cut and split bamboo allowed the Dyak to reach the upper branches of otherwise inaccessible trees. The outer



Clumping growth habit and arching stems covered with pendulous leaves make Otatea aztecorum a graceful addition to local gardens.





Small members of the running bamboo species make airy, informal hedges for confined areas.

layers of the bamboo stems (culms) were used to tie poles together and to weave sturdy animal cages. Bridges of single bamboo lengths provided a flexible, rot resistant, readily replaceable span over the often torrential rivers. Bamboo handrailings were frequently provided. Flumes of split or closed bamboo stems brought fresh water to villages otherwise isolated from the water source. The softer young shoots were eaten. The extent to which bamboo provided the necessities and niceties for some primitive cultures can hardly be overstated. Many of the usages are still practiced today unchanged from centuries ago.

It is of interest to mention here some of the flowering peculiarities of bamboos. There are several manners of flowering found among the different bamboos. Some species maintain vigorous growth by sterile shoots, flowering only rarely; *Bambusa vulgaris* is not known to have set viable seed since it was first de-

scribed by Wendland in 1810. Other species seem to be always in some state of flowering. Still others undergo a gregarious type of flowering in which the entire clump dies after blooming. In some species only part of the clump flowers and is later replaced by new culms.

The gregarious flowerings of bamboo have historically caused the greatest stir among native peoples as well as botanists. During a local famine along the eastern coast of India in 1812, there was a general flowering of the bamboo. The production of the bamboo fruits alleviated the hunger of thousands of people as they gathered the copious amounts of seed released from the maturing flower clusters. The fruits were cooked and eaten like rice. *Bambusa arundinacea* (Giant Thorny Bamboo) was reported to have flowered at about 32 year intervals – 1804, 1836, and 1868. There is no consensus of opinion as to the significance, nature, or triggering

mechanism of these periodic flowerings of bamboo.

When the first silk worms were smuggled out of China for Emperor Justinian of Constantinople, they were concealed in a hollow bamboo cane. The worms were taken to the Imperial Palace where the emperor had already secured a monopoly on the manufacture of silk fabric in the West. He was then able to produce the needed raw silk as well.

Bamboo was known to the early botanist Theophrastus who mentioned it in his *Enquiry into Plants* probably written sometime between 250 and 285 B.C. He was an astute observer and was able to discern several types of plants known to this day. He described the Indian bamboo as "male" or "female" based upon his determination of their fruiting capability. The male bamboo he described as having solid stems was probably *Dendrocalamus strictus*, and the female with hollow stems was probably *Bambusa arundinacea*. His inclusion of two now separate genera under the term bamboo is not



Flowers of Sasa japonica prove its link with the other grasses.

surprising in a group of plants still confusing to taxonomists. Theophrastus was also among the first to notice a characteristic of some bamboos – the stout "roots" are numerous and difficult to destroy.

It is this somewhat weedy nature of a few species that has most contributed to a negative image of bamboos for home use. The diversity of

habit, size, and texture to be found among the bamboos recommends them for consideration for numerous landscape situations. Besides the running types of bamboos, there are those which form clumps. These may develop aggressive culms but they do not spread as rapidly or extensively as the running species. The Arboretum introduced the graceful clump bamboo *Otatea aztecorum* into the nursery trade under the name of *Arthrostylidium longifolium*. Pendulous narrow leaves densely arranged toward the ends of the stems make this one of the more unusual bamboos available.

Bamboo species may also be selected for their various heights and color patterns. Observations of the bamboo collection at the Arboretum and consideration of published descriptions should allow the home gardener to select an appropriate plant for nearly every situation.

In the list the bamboos are broken down into broad categories of clumping or running types, and within those divisions three height classes are recognized. The scientific name of each species is followed by the common name where known, the height, and the lowest temperature range of hardiness for the species. The LASCA collections have withstood temperatures as low as 24°F in 1979. This may affect consideration of the lowest temperature of hardiness for the species listed.

Fine specimens of most of the bamboos mentioned here may be seen in the palm and bamboo section of the Arboretum grounds. This area is a short distance south of the entrance, curving around the lower lake and historical area. Several others are to be found along the north side of the jungle area. Only those marked by an asterisk are not currently grown here.

There are numerous other bamboos for consideration, but those listed here are among the most successful in cultivation.

CLUMPING BAMBOOS

SMALL:

**Bambusa ventricosa* (Buddha Bamboo) 3-6 ft. in containers; hardy to 20°F.

MEDIUM:

Bambusa glaucescens (Hedge Bamboo) to 10 ft., 1½ in. diam.; hardy to 20°F. (synonym: *B. multiplex*)

LARGE:

Arthrostylidium longifolium. (See *Otatea aztecorum*)

Bambusa arundinacea (Giant Thorny Bamboo) to 100 ft., 5½ in. diam.; hardy to 40°F.

Bambusa beecheyana (Beechey Bamboo) to 40 ft., 4 in. diam.; hardy to 40°F.

Bambusa oldhamii (Oldham Bamboo) to 55 ft., 3 in. diam.; hardy to 20°F.

Bambusa polymorpha to 90 ft., 6 in. diam.; hardy to 40°F.

Bambusa textilis to 50 ft., 2½ in. diam.; hardy to 40°F.

Bambusa tulda to 70 ft., 3 in. diam.; hardy to 40°F.

Bambusa tuldaoides (Punting Pole Bamboo) to 50 ft., 2½ in. diam.; hardy to 40°F.

Bambusa ventricosa (Buddha Bamboo) planted out to 55 ft., 2½ in. diam.; hardy to 40°F.

Bambusa vulgaris (Common Bamboo) to 60 ft., 5 in. diam.; hardy to 40°F.

Dendrocalamus strictus (Male Bamboo) to 50 ft., 5 in. diam.; hardy to 40°F.

Otatea aztecorum to 20 ft., 1¼ in. diam.; hardy to 24°F.

RUNNING BAMBOOS

SMALL:

Arundinaria disticha (Dwarf Fern-leaved Bamboo) to 3 ft.; hardy to 10°F. (synonym: *Sasa disticha*)



Clumping bamboos such as *Bambusa glaucescens* do not spread as extensively as the running types.

**Arundinaria humilis* to 3 ft.; hardy to 0°F. (synonym: *Sasa humilis*)
Arundinaria pygmaea (Pygmy Bamboo) to 1 ft., hardy to 20°F. (synonym: *Sasa pygmaea*)
Chimonobambusa marmorea (Marbled Bamboo) to 10 ft., 5/8 in. diam.; hardy to 20°F.
Sasa tessellata to 5 ft.; hardy to 20°F.
Shibatea kumasaca to 6 ft.; hardy to 20°F.

MEDIUM:

Phyllostachys aurea (Golden Bamboo) to 20 ft., 1½ in. diam.; hardy to 30°F.
**Phyllostachys nigra* (Black Bamboo) to 25 ft., 1 in. diam.; hardy to 5°F.

Sasa japonica (Metake, Arrow Bamboo) to 15 ft., ¾ in. diam.; hardy to 20°F. (synonym: *Pseudosasa japonica* in *Hortus Third.*)
Sasa palmata to 8 ft., ½ in. diam.; hardy to 20°F.

LARGE:

Arundinaria amabilis (Tonkin Bamboo) to 40 ft., 2½ in. diam.; hardy to 20°F.
Arundinaria simonii (Simon Bamboo) to 25 ft., 1¼ in. diam.; hardy to 20°F.
**Chimonobambusa falcata* (Sickle Bamboo) to 20 ft., ½ in. diam.; hardy to 20°F.
Chimonobambusa quadrangularis (Square-stem Bamboo) to 30 ft., 1 in. diam.; hardy to 20°F.

Phyllostachys bambusoides (Timber Bamboo) to 70 ft., 6 in. diam.; hardy to 0°F.

Phyllostachys meyeri (Meyer Bamboo) to 30 ft., 2 in. diam.; hardy to 0°F.

**Phyllostachys pubescens* (Moso Bamboo) to 70 ft., 5 in. diam.; hardy to 20°F.

Semiarundinaria fastuosa (Narihira Bamboo) to 25 ft., 1½ in. diam.; hardy to 20°F.

Dr. Gary Wallace is a plant taxonomist at the Arboretum.

(Photographs by William Aplin)

LOS ANGELES STATE AND COUNTY ARBORETUM, Arcadia

MARCH 14 — 9 a.m. to 4:30 p.m.
Cooperative Action Environmental Education Resources Fair
Hosted by Los Angeles State and County Arboretum

**MARCH 21, 22 — Sat. 1 p.m. to 4:30 p.m.
Sun. 9 a.m. to 4:30 p.m.**
Flower Show
Girl Scouts of America**

**APRIL 4, 5 — Sat. 1 p.m. to 4:30 p.m.
Sun. 9 a.m. to 4:30 p.m.**
Aral Show
Aral Society**

APRIL 11, 12 — 9 a.m. to 4:30 p.m.
Mame Show
Mame Society of Southern California**

**APRIL 18, 19 — Sat. 1 p.m. to 4:30 p.m.
Sun. 9 a.m. to 4:30 p.m.**
Amaryllis Show
Southern California Hemerocallis and Amaryllis Society**

**APRIL 25, 26 — Sat. 1 p.m. to 4:30 p.m.
Sun. 9 a.m. to 4:30 p.m.**
Rose Show
Pacific Rose Society**

MAY 3 — 9 a.m. to 4:30 p.m.
Baldwin Bonanza, a plant sale*

**MAY 16, 17 — Sat. 1 p.m. to 4:30 p.m.
Sun. 9 a.m. to 4:30 p.m.**
Bromeliad Show
So. California Bromeliad Council**

MAY 17 — 11 a.m. to 4:30 p.m.
Epiphyllum Show
Epiphyllum Society**

MAY 23, 24, 25 — 9 a.m. to 4:30 p.m.
Bonsai Show
Santa Anita Bonsai Society**

CALENDAR

MARCH, APRIL, MAY

MAY 30, 31 — 9 a.m. to 4:30 p.m.
Satsuki & Azalea Show
Valley Satsuki & Azalea Society**
*Sponsored by California Arboretum Foundation
**Cosponsored by California Arboretum Foundation

DESCANSO GARDENS, La Canada
MARCH 1 — 9 a.m. to 4:30 p.m.
Camellia Show
Camellia Society of So. California**

MARCH 14, 15 — 9 a.m. to 4:30 p.m.
Daffodil Show
Daffodil Society of So. California**

MAY 2, 3 — 9 a.m. to 4:30 p.m.
Bonsai Show
Descanso Bonsai Society**

MAY 14 — 10 a.m. to 4 p.m.
Paseo por Descanso, guided walk of Garden and luncheon on main lawn*
*Sponsored by Descanso Gardens Guild
**Cosponsored by Descanso Gardens Guild

SOUTH COAST BOTANIC GARDEN, Palos Verdes Peninsula
MARCH 8 — 2 p.m.
Demonstration by Eleanor Barker
How to Repot & Divide Cactus & Succulents
South Coast Cactus & Succulent Soc.**

MARCH 15 — 2 p.m.

Demonstration by Fred McKelvey*
Now is the Time to Divide & Plant Dahlias

MARCH 22 — 2 p.m.

Demonstration by Ilene DeLong*
Flower Arrangements of Dried Materials

MARCH 29 — 2 p.m.

Talk by Dan Walker*
"Landscaping for Color with Flowering Trees and Shrubs"

APRIL 5 — 2 p.m.

Palos Verdes Symphonic Spring Band Concert*
Light classics, show tunes

APRIL 12 — 2 p.m.

Demonstration by Lou Katus*
Potting, propagation & culture of African violets

APRIL 21 — 10 a.m. to 2 p.m.

Senior Citizens Day*
Free plant and guided walk

APRIL 26 — 2 p.m.

Talk by Ruth Pease*
"Use & culture of shade plants, indoors and outdoors"

MAY 16, 17 — 9 a.m. to 4:30 p.m.

Fiesta de Flores, a plant sale*

MAY 24 — 9 a.m. to 4:30 p.m.

Rose Show
South Coast Rose Society**

MAY 30, 31 — 9 a.m. to 4:30 p.m.

Flower Show
Costa Verde District

*Sponsored by South Coast Botanic Garden Foundation

**Cosponsored by South Coast Botanic Garden Foundation